

No.

9900003



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Arizona Plant Breeders, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE SEED. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BARLEY

'Baretta'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twelfth day of September, in the year two thousand one.

Attest:

P. M. Zerkow

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Andrew G. Larson

Secretary of Agriculture

REPRODUCE LOCALLY. Include form number and date on all reproductions

Form Approved - OMB No. 0581-0

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.
Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions and information collection burden statement on reverse)

1 NAME OF OWNER

Arizona Plant Breeders, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME

B91-3

3. VARIETY NAME

Baretta

4 ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)

P.O. Box 5985
Arizona City, AZ. 85223

5 TELEPHONE (include area code)

520-466-6552

FOR OFFICIAL USE ONLY

PVPO NUMBER

9900003

6. FAX (include area code)

520-466-6584

FILING DATE

Oct. 6, 1998

7 IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)

Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION

Montana

9. DATE OF INCORPORATION

Jan. 18, 1989

10 NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)

Dr. A.E. Carleton
P.O. Box 5985
Arizona City, AZ. 85223

Ward M. Orcutt
P.O. Box 5985
Arizona City, AZ. 85223

FILING AND EXAMINATION FEES:

2325.00 10/6/98

125.00 12/3/98

2450.00

DATE 12/2/98

CERTIFICATION FEE:

320.00

DATE 8/24/01

11 TELEPHONE (Include area code)

520-466-6552

12. FAX (Include area code)

520-466-6584

13. E-MAIL

N/A

14. CROP KIND (Common Name)

Barley

15. GENUS AND SPECIES NAME OF CROP

Hordeum Vulgare

16. FAMILY NAME (Botanical)

Gyaminea

17. IS THE VARIETY A FIRST GENERATION HYBRID?

☐ YES

☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety

b. ☒ Exhibit B. Statement of Distinctness

c. ☒ Exhibit C. Objective Description of Variety

d. ☐ Exhibit D. Additional Description of the Variety (Optional)

e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership

f. ☐ Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)

g. ☒ Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?

☒ YES USA Dec. 1997 ☐ NO

IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act

☒ YES (If "yes," answer items 20 and 21 below)

☐ NO (If "no," go to item 22)

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☒ YES

☐ NO

21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☒ FOUNDATION

☒ REGISTERED

☒ CERTIFIED

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?

☐ YES

☒ NO

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER

Albert E. Carleton

NAME (Please print or type)

SIGNATURE OF OWNER

Ward M. Orcutt

NAME (Please print or type)

CAPACITY OR TITLE

DATE

CAPACITY OR TITLE

DATE

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,400 (\$300 filing fee and \$2,150 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initiated and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvp.htm>

ITEM

- 18a. Give:
 - (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
 - (2) the details of subsequent stages of selection and multiplication;
 - (3) evidence of uniformity and stability; and
 - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
 - 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness
 - 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety
 - 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
 - 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
 23. See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- USA Dec. 1997

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23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center-East, Beltsville, MD 20705. Telephone: (301) 504-8089.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your title. Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibitions apply to all programs.) Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity employer.

170 (5-98) designed by the Plant Variety Protection Office with WordPerfect 6.1a. Replaces 170-1

BARETTA BARLEY

9900003

14.a.

Exhibit A, Origin and Breeding History of Baretta Barley

Baretta barley was selected for plant height, large heads and seeds by Arizona Plant Breeders, Inc. at Casa Grande, Arizona in the spring of 1990 as a F2 plant from a genetic male sterile facilitated recurrent selection population. This population was developed by Dr. T.R. Ramage, USDA, ARS and the University of Arizona and released as composite cross 89-622442 (large seed from CC32 disease). F3 rows from selected F2 plants were grown in Montana out of the area of adaptation and were not selected for any agronomy traits in the summer of 1990. Four heads were selected from each F3 row and seeded in Arizona as an F4 plot consisting of four single rows in the fall of 1990. These F4 plots were evaluated for plant height, earliness, lodging resistance and straw strength after ripening. Several different F4 plots were selected and 24 heads were taken to Montana for increase in the spring of 1991. Twenty-one (21) uniform, non-segregating F4 rows were bulked to form the F6 generation of Baretta. The F6 generation was evaluated in replicated yield trials for agronomic traits such as maturity, plant height, lodging, grain yield and test weight in Arizona in 1991-1992. One hundred (100) heads were selected from the F6 bulk and seeded as F7 head-rows in Arizona in the fall of 1992. The uniform, non-segregating head-rows were harvested separately and bulked in the spring of 1993. This bulk was seeded in the fall of 1993 in Arizona and the seed harvested in 1994 was considered Pre-Breeders seed. This Pre-Breeders seed was planted in Arizona in 1995 to produce the Breeders seed. Breeders seed was planted under Arizona Crop Improvement Association supervision to produce Foundation seed in 1996.

Baretta is a stable and uniform variety in agronomic appearance and performance across several generations and growing conditions. Agronomic data to support this stability are presented in Tables 1, 2, and 3.

Addition (1) - Agronomic data to support uniformity and stability has been observed for five generations as shown in Tables 1, 2 and 3, where the next generation was for each years testing.

Addition (2) - No variant has been observed in Baretta variety after head-rowing in 1992.

BARETTA BARLEY14.b. Exhibit B, Novelty Statement.

Baretta is a semidwarf, six-row spring barley, medium in maturity with short, strong straw. Baretta is most similar in phenotypic appearance to the varieties West Bred Gustoe and Mucho. Baretta is 10 days earlier than Mucho and 2 days earlier than Gustoe in maturity. Baretta is about the same height as Mucho and about 5 cm shorter than Gustoe. Baretta has a white aleurone like Mucho, while Gustoe is blue. Baretta has smooth awns while Mucho and Gustoe have rough awns. The above comparisons along with the complete objective descriptions (14.c. exhibit C) show Baretta to be a novel variety of Spring Barley.

14B Exhibit B- Novelty Statement

Amendment (1) - Baretta has smooth awns while Mucho has semi-rough awns and Gustoe has rough awns.

14.e. Exhibit E, Statement of the Basis of Applicants Ownership.

The variety for which Plant Variety Protection is hereby sought was developed by Dr. Albert E. Carleton and Ward M. Orcutt, employees and officers of Arizona Plant Breeders, Inc. as President and vice-president respectively. By agreement between the employees and Arizona Plant Breeders, Inc., all rights to any invention, discovery or development made by the employees while employed by Arizona Plant Breeders, Inc. were assigned to Arizona Plant Breeders, Inc., with no rights of any kind retained by employees.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Barley)

OBJECTIVE DESCRIPTION OF VARIETY
BARLEY (*HORDEUM VULGARE*)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

Arizona Plant Breeders, Inc.

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

P.O. Box 5985, Arizona City, AZ 85223

FOR OFFICIAL USE ONLY

PVPO NUMBER 9900003

VARIETY NAME OR TEMPORARY
DESIGNATION
/ B91-3 Baretta

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (i.e. or) when number is either 99 or less or 9 or less.

1. GROWTH HABIT:

1 - SPRING 2 - FACULTATIVE WINTER 3 - WINTER Early Growth: 1 - PROSTRATE 2 - SEMIPROSTRATE
3 - ERECT

2. MATURITY (50% Flowering):

1 - EARLY (California Mariout) 2 - MIDSEASON (Betzes) 3 - LATE (Frontier)

No. of days Earlier than } 1 - BETZES 2 - CALIFORNIA MARIOUT 3 - CONQUEST 4 - DICKSON
 No. of days Later than } 5 - PIROLINE 6 - PRIMUS 7 - UNITAN 8 = Mucho 9 = Gustoe

3. PLANT HEIGHT (From soil level to top of head):

1 - SEMIDWARF 2 - SHORT (California Mariout) 3 - MEDIUM TALL (Betzes) 4 - TALL (Conquest)

Cm. Shorter than } 1 - BETZES 2 - CALIFORNIA MARIOUT 3 - CONQUEST 4 - DICKSON
 Cm. Taller than } 5 - PIROLINE 6 - PRIMUS 7 - UNITAN 8 = Mucho 9 = Gustoe

4. STEM:

Exertion (Flag to spike at maturity): 1 - 0 - 3 cm. 2 - 3 - 10 cm. Anthocyanin: 1 - ABSENT 2 - PRESENT
3 - 10 - 15 cm.

NO. OF NODES (Originating from node above ground)

Collar Shape: 1 - CLOSED 2 - V-SHAPED 3 - OPEN Shape of Neck: 1 - STRAIGHT 2 - SNAKY
4 - MODIFIED CLOSED OR OPEN 3 - OTHER (Specify) .

5. LEAF:

Basal leaf sheath (seedling): 1 - GLABROUS 2 - PUBESCENT Position of flag leaf (at boot stage): 1 - DROOPING
2 - UPRIGHT

Waxiness: 1 - ABSENT (Glossy) 2 - SLIGHTLY WAXY MM. WIDTH (First leaf below flag leaf)
3 - WAXY

CM. LENGTH (First leaf below flag leaf) Anthocyanin in leaf sheath: 1 - ABSENT 2 - PRESENT

6. HEAD:

Type: 1 - TWO-ROWED 2 - SIX-ROWED Density: 1 - LAX 2 - ERECT (Not dense)
3 - ERECT (Dense)

Shape: 1 - TAPERING 2 - STRAP 3 - CLAVATE Waxiness: 1 - ABSENT (Glossy) 2 - SLIGHTLY WAXY
4 - OTHER (Specify) 3 - WAXY

Lateral Kernels Overlap: 1 - NONE 2 - AT TIP Rachis (Hair on edge): 1 - LACKING 2 - FEW 3 - COVERED
3 - 1/4 - 1/2 OF HEAD

7. GLUME:

Length: 1 - 1/3 OF LEMMA 2 - 1/2 OF LEMMA Hairs: 1 - NONE 2 - SHORT 3 - LONG
3 - MORE THAN 1/2 OF LEMMA

Hair covering: 1 - NONE 2 - RESTRICTED TO MIDDLE 3 - CONFINED TO BAND 4 - COMPLETELY COVERED

Awns: 1 - LESS THAN EQUAL TO LENGTH OF GLUMES 2 - EQUAL TO LENGTH OF GLUMES
3 - MORE THAN EQUAL TO LENGTH OF GLUMES

Awn Surface: 1 - SMOOTH 2 - SEMISMOOTH 3 - ROUGH

8. LEMMA:

- ☐ 5 Awn: 1 = AWNLESS 2 = AWNLETS ON CENTRAL ROWS AWNLESS ON LATERAL ROWS
 3 = SHORT ON CENTRAL ROWS, AWNLETS ON LATERAL ROWS 4 = SHORT (less than equal to length of spike)
 5 = LONG (longer than spike) 6 = HOODED
- ☐ 2 Awn Surface: 1 = AWNLESS 2 = SMOOTH 3 = SEMISMOOTH 4 = ROUGH
- ☐ 1 Teeth: 1 = ABSENT 2 = FEW 3 = NUMEROUS ☐ 1 Hair: 1 = ABSENT 2 = PRESENT
- ☐ 1 Shape of base: 1 = DEPRESSION 2 = SLIGHT CREASE 3 = TRANSVERSE CREASE ☐ 1 Rachilla Hairs: 1 = SHORT 2 = LONG

9. STIGMA:

- ☐ 2 Hairs: 1 = FEW 2 = MANY

10. SEED:

- ☐ 2 Type: 1 = NAKED 2 = COVERED ☐ 2 Hairs on Ventral Furrow: 1 = ABSENT 2 = PRESENT
- ☐ 3 Length: 1 = SHORT (8.0 mm.) 2 = SHORT TO MIDLONG (7.5 - 9.0 mm.) 3 = MIDLONG (8.5 - 9.5 mm.)
 4 = MIDLONG TO LONG (9.0 - 10.5 mm.) 5 = LONG (10.0 mm.)
- ☐ 3 Wrinkling of hull: 1 = NAKED 2 = SLIGHTLY WRINKLED 3 = SEMIWRINKLED 4 = WRINKLED
- ☐ 1 Aleurone Color: 1 = COLORLESS (White or Yellow) 2 = BLUE
- ☐ 0 ☐ 1 PERCENT ABORTIVE ☐ 4 ☐ 9 GMS. PER 1000 SEEDS

11. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

- ☐ 0 SEPTORIA ☐ 1 NET BLOTCH ☐ 0 SPOT BLOTCH ☐ 2 POWDERY MILDEW
- ☐ 1 LOOSE SMUT ☐ 1 BACTERIAL BLIGHT ☐ 0 COVERED SMUT ☐ 1 FALSE LOOSE SMUT
- ☐ 0 STEM RUST ☐ 1 LEAF RUST ☐ 0 SCAB ☐ 1 SCALD
- ☐ 0 AY ☐ 0 BSMV ☐ 1 BYDV ☐ OTHER (Specify)

12. INSECT: (0 = Not tested, 1 = Susceptible, 2 = Resistant)

- ☐ 0 GREEN BUG ☐ 0 ENGLISH GRAIN APHID ☐ 0 CHINCH BUG ☐ 0 ARMYWORM
- ☐ 0 GRASS HOPPERS ☐ 0 CERIAL LEAF BETTLE ☐ 0 OTHER (Specify)
- HESSIAN FLY RACES ☐ 0 GP ☐ 0 A ☐ 0 B ☐ 0 C
☐ 0 D ☐ 0 E ☐ 0 F ☐ 0 G

13. CHEMICAL (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

- ☐ 0 DDT ☐ 0 OTHER (Specify)

14. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Mucho	Seed size	Mucho
Leaf size	Mucho	Coleoptile elongation	Mucho
Leaf color	Mucho	Seedling pigmentation	Mucho
Leaf carriage	Mucho		Mucho

REFERENCES: The following publications may be used as a reference aid for the standardization of character descriptions and terms used in this form:

1. Wiebe, G. A., and D. A. Reid, 1961, Classification of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Dept. of Agriculture.
2. Reid, D. A., and G. A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Dept. of Agriculture. pp. 61 - 84.
3. Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

COLOR: Nickerson's or any recognized color fan may be used to determine color of the described variety.

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TABLE 1**Comparison of B91-3 (Baretta) to Mucho, Gustoe and Nebula
in Arizona Plant Breeders Trails**

<u>Year 91-92</u>	<u>Heading Date</u>	<u>Plant Height (in.)</u>	<u>Yield (lb./A)</u>
B91-3	3/6	31	7,321
Gustoe	3/15	34	5,578
Mucho	2/24	30	6,972
<u>Year 93-94*</u>			
B91-3	3/20	30	5,974
Gustoe	3/25	32	5,220
Mucho	3/29	30	5,162
<u>Year 94-95</u>			
B91-3	3/19	30	5,461
Mucho	3/8	29	4,358
<u>Year 95-96</u>			
B91-3	3/18	30	5,365
Mucho	3/10	30	4,292
Gustoe	3/23	33	5,150
<u>Year 96-97</u>			
B91-3	3/20	31	6,098
Mucho	3/8	31	5,401
Nebula	3/21	39	4,937

*No test in 92-93

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TABLE 2

**University of California data for 1993- 95- 96 comparing B91-3
with other varieties for yield, agronomic traits and disease reactions.**

1993 San Joaquin Valley, CA (mean of 2 locations)

Entry	Yield	T.W	HT.	Net blotch	Scald	Leaf rust	Stripe rust
B91-3	5600	50.2	27	1.0	1.0	3.2	-
Mucho	4330	53.2	28	1.0	1.0	1.9	-
Max	4470	50.9	26	1.3	1.0	2.7	-
WC337	5050	49.6	36	1.0	1.0	2.8	-

1995 San Joaquin Valley, CA (mean of 2 locations)*

B91-3	4200	45.4	35	2.9	4.2	3.1	1.5
Mucho	3170	45.6	36	5.5	7.0	1.2	1.0
Max	3940	44.3	38	5.9	2.0	2.2	1.4
WC337	4410	48.6	42	2.2	3.5	2.9	1.3

1996 Merced location only**

B91-3	2300	39.9	40	1.5	1.0	1.0	7.3
Mucho	-	-	-	-	-	-	-
Max	940	37.2	38	1.5	1.0	1.0	7.3
WC337	3360	42.8	48	1.0	1.0	1.0	6.5

***1995 - Bad year for disease. Start of stripe rust**

****1996 - Heavy stripe rust infection reduced yields and T.W.
Could only harvest a few nurseries.**

9900003

TABLE 3

**University of Arizona data comparing B91-3
with other varieties for yield and agronomic traits in 1995 and 1996**

1995 Maricopa, AZ

Entry	Yield LB/A	T.W.	HT	Lodging	Maturity
B91-3	5828	-	31	15	4/23
Max	6287	-	33	8	5/2
Gustoe	5740	-	31	22	4/25

1996 Maricopa, AZ

B91-3	5800	53.6	34	70	4/19
Max	6223	53.8	32	68	4/23
Gustoe	5531	51.5	31	78	4/20
Mucho	3947	50.6	30	72	4/5

1995 Gila Bend, AZ

Entry	Yield LB/A	T.W.	HT
B91-3	5621	-	-
Max	6356	-	-
Gustoe	4618	-	-

1996 Gila Bend, AZ

B91-3	5347	51.8	28.9
Max	5689	52.1	26
Gustoe	5205	53.2	26
Mucho	5407	50.2	25

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)

Arizona Plant Breeders, Inc.

2. TEMPORARY DESIGNATION
OR EXPERIMENTAL NUMBER

B91-3

3. VARIETY NAME

Baretta

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)

P.O. Box 5985

Arizona City, AZ. 85223

5. TELEPHONE (include area code)

520-466-6552

6. FAX (include area code)

520-466-6584

7. PVPO NUMBER

9900003

8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain.

☒ YES

☐ NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company?
If no, give name of country

☒ YES

☐ NO

10. Is the applicant the original owner?

☒ YES

☐ NO

If no, please answer one of the following:

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

☒ YES

☐ NO

If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

☒ YES

☐ NO

If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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